

# **SmartHub**



# 802.11 b/g/n Wireless Router Model AWRT-300N

## User's Manual

Rev. 1.0

## Table of Contents

1. Introduction	3
1.1 Package Contents	3
1.2 Features	3
2. Connecting the Router	4
3. Configuring the Router	5
Cable Modem	5
DSL	6
4. Verifying Connection	8
5. Connecting to the Router Wirelessly	9
6. Web Configuration Utility	. 10
6.1 Setup	. 10
6.1.1 Setup > Basic Setup	. 10
6.1.2 Setup > DDNS	. 16
6.1.3 Setup > MAC Address Clone	. 17
6.1.4 Setup > Advanced Routing	. 18
6.2. Wireless	. 19
6.2.1 Wireless > Basic Wireless Settings	. 19
6.2.2 Wireless > Wireless Security	. 21
6.2.3 Wireless > Wireless MAC Filter	. 30
6.2.4 Wireless > Advanced Wireless Settings	. 31
6.3 Security	. 33
6.3.1 Security > Firewall	. 33
6.4 Access Restrictions	. 35
6.4.1 Access Restrictions > Internet Access Policy	35
6.5 Applications & Gaming	. 39
6.5.1 Applications & Gaming > Single Port Forwarding	. 39
6.5.2 Applications & Gaming > Port Range Forwarding	. 40
6.5.3 Applications & Gaming > DMZ	. 42
6.5.4 Applications & Gaming > QoS	43
6.6 Administration	. 51
6.6.1 Administration > Management	. 51
6.6.2 Administration > Log	. 52
6.6.3 Administration > Diagnostics	. 53
6.6.4 Administration > Factory Defaults	. 54
6.6.5 Administration > Firmware Upgrade	. 55
6.7 Status	56
6.7.1 Status > Router	. 56
6.7.2 Status > Local Network	. 57
6.7.3 Status > Wireless Network	. 58
7. Specifications	. 59
Appendix – Information	. 60
Technical Support	. 60

#### 1. Introduction

Thank you for purchasing Asante AWRT-300N Smart Wireless N Router. The AWRT-300N Wireless N Router provides 2.4 GHz wireless frequency which allow more clean channels and less interference for your wireless network. A full range of security features such as WPA2-PSK, WPA-PSK, and WEP provide the highest level of wireless network security. The built-in SmartHub Web Configuration Utility has a unique 'Easy Set up' option that allows one to set up the router with no or minimum networking knowledge. The built-in Web Configuration Utility also has the regular path to set up the router with an easy-to-use user interface.

SmartHub is a router with a very innovative design (Patent Pending) where offers user a smart way to reach and to manage this router. The innovative features of this design include :

- It can smartly redirect a login page and authenticate user whenever user bring up a browser. -This significantly eliminates the burden to user who needs to remember the IP address and technologies and figure out how to access a router.
- 2) It can be reached by entering "smarthub" on any browser and anytime. This design makes SmartHub become a very friendly device instead of awkward IP address.
- It can manage a list of user's name and password so that administrator can easily create/delete/monitor the user status without entering computer's machine ID(MAC address) or dynamic changing IP address).
- 4) Offers 2 levels of security system (a) user access control and (b) wireless security where user can has it discretion to select its provisioning depend on its need. Today's Wifi encryption is a complex technology that vertically increase the challenge to all users to know how to use it. And yet, SmartHub gives a very efficient way and also retain wifi security requirements.
- 5) This access control method can persistently authenticate user whenever user's trying to reconnect to SmartHub. New user could be easily added on by creating a username and password in a minute. Likewise, it can be erased afterward and without changing entire security setting. Today's Wifi static system, administrator may need to force to change setting after new user is off and impact to all existing user to adopt new setting.
- 6) Smarthub's smart access control method could be disabled if user has no need to control security in this fashion. Simple go to Advanced Set Up-> management, and disable it.

#### 1.1 Package Contents

Before you begin the installation, please check the items of your package:

- □ SmartHub AWRT-300N Wireless N Router
- Power Adapter
- □ Ethernet Cable (Cat.5)
- Manual CD
- □ Quick Installation Guide

If any item contained is damaged or missing, please contact your local dealer immediately. Also, keep the box and packaging materials in case you need to ship the unit in the future.

#### 1.2 Features

- Smart Setup, Management, Control.
- 2.4GHz single band AP.
- More channels, less interference ideal for wireless congested area
- Highest wireless data rate of up to 150Mbps\* with 802.11n draft 2.0
- WPS button for easy connection with your WPS support wireless adapters
- Enjoy HD video streaming, gaming and VoIP with powerful 802.11n Wireless technology
- Advanced NAT+SPI firewall provides fully protection for your wireless connection
- QoS (Quality of Service) designed for prioritizing various data traffic to allow downloading files and playing movies, music, or online gaming at the same time with uninterrupted data streaming
- Supports Universal Plug and Play
- Fully backward compatible with 802.11b/g

#### 2. Connecting the Router

**Note:** Prior to connecting the router, be sure to power off your computer, DSL/Cable modem, and the router.

**Step 1** Connect one end of a network cable to the **INTERNET(yellow)** port of the router and connect the other end of the cable to the DSL/Cable modem.

**Step 2** With another network cable, connect one end of the cable to your computer's Ethernet port and connect the other end to one of the **LAN** ports of the router.

Step 3 Power on the DSL/Cable modem and wait for the lights on the modem to become stable.

Step 4 Plug the power adapter to the router and connect to an outlet or power strip.

Step 5 Power on your computer.

**Step 6** Make sure the **INTERNET**, **WIRELESS**, and the **LAN** port that the computer is connected to are lit. If not, try the above steps again.

#### **LED Indicators:**



How the router connects:



#### 3. Configuring the Router

After all components in the previous picture are connected and powered up, follow the steps below to configure the router.

**Step 1** Open the web browser (Internet Explorer/Mozilla Firefox/Safari/Chrome). If this is the first time, the logon page below should appear. Or you can type "smarthub" or "192.168.1.1" on the browser.

Asante			SmartHub AVART-300N
	1 <sup>st</sup> Time	to Smartl	Hub
	You will be the 1st adr	ninistratior.	
	Administrator :	admin	Default admin - you may change it
	Password :		Create your password
	Re-type Password :		
	Save	& Enter	

Otherwise the regular user page below will appear below after 1<sup>st</sup> administrator created the user profile.

Asante		SmartHub AWRT-300N
	Welcome to SmartHub	
	Username :	
	Password :	
	Enter	

**Step 2** Enter **admin** for both the username and password fields and click **OK**. The page below should appear.

MAsante			SmartHub AWRT-300N
	Hi, A	dministrator	
	You may enter	Easy Set Up	or
	You may enter You may enter	Easy Set Up Advanced Set Up	or or
	You may enter You may enter	Easy Set Up Advanced Set Up Check Status of Users On Line	or or

The sections below cover the 'Advanced Set Up' option. The 'Easy Set Up' will automatically guide you accordingly with online help menu. It is very simple and straightforward set up procedure which will not describe in this manual.

#### The Cable Modem

For most cable modem users, you should be able to connect to the Internet without any configuration. Automatic Configuration – DHCP is usually the default Internet Connection Type. If your ISP has provided you with a host name, enter it in the optional **Host Name** field. Click **Save Settings** to save the settings.

🕅 Asar	nte			SmartHub AWRT-300N
EZ Set Up		Basic Setup   DDNS	MAC Address Clone   Advanced Routing	
Setup	Internet Setup			
Status	Internet Connection Type	Automatic Configuration	n - DHCP 💌	Help Explain
Wireless	Optional Settings	Host Name:	Asante	
	Internet Service	Domain Name:	Asante	
Firewall	Plovidersy	MTU:	Auto Size: 1500	
Access Policy		СС.		
Application	Network Setup	IP Address:	192 . 168 . 1 . 1	
	Router IP	Subnet Mask :	255.255.255.0 💌	
Administration				
	DHCP Server Setting	DHCP Server :	Enabled      Disabled      DHCP Reservation	
		Start IP Address :	192 . 168 . 1 . 100	
		Maximum Number of Users :	50	
		IP Address Range :	192 168 1 100 to 149	

If your ISP requires a registered MAC Address, click on the **MAC Address Clone** tab select **Enabled**, and click on the **Clone My PC's MAC** button. Click **Save Settings** to save the settings.

🕅 Asai	nte			SmartHub AWRT-300N
EZ Set Up		Basic Setup   DI	DNS   MAC Address Clone   Advanced Routing	
Setup	MAC Address Clone			
Status		Enabled O Dis	sabled	Help Explain
Wireless		MAC Address		
Firewall		IIAC Address.	Clone My PC's MAC	
Access Policy				
Application				
Administration				
	7		Save Settings Cancel Cl	hanges

If you have trouble connecting to the Internet, please refer to Section 4, Verifying Connection.

#### DSL

For DSL users, follow the steps below to configure the router.

**Step 1** Select **PPPoE** from the drop-down menu.

<b>A</b> sar	nte			SmartHub AVRT-300N
EZ Set Up		Basic Setup   DDNS	I MAC Address Clone   Advanced Routing	
Setup	Internet Setup			
Status	Internet Connection Type	PPPoE Automatic Configurat	ion - DHCP	Help Explain
Wireless		Static IP PPPoE PPTP		
Firewall		L2TP Telstra Cable Service Name(Optiona	al):	
Access Policy		<ul> <li>Connect on Dema</li> <li>Keep Alive: Redia</li> </ul>	and:Max Idle Time 5 Minutes. al Period 30 Seconds.	
Application				
Administration	Optional Settings	Host Name:	Asante	
	(required by some Internet Service Providers)	Domain Name : MTU :	Asante Auto Size: 1492	

#### Step 2 Enter your username and password provided by your ISP.

#### 7/Asante

EZ Set Up		Basic Setup   DDNS	MAC Address Clone   Advanced Routing	
Setup	Internet Setup			
Status	Internet Connection Type	PPPoE		Help Explain
Wireless		Username : Password:		
Firewall		Service Name(Optiona	0:	
Access Policy		<ul> <li>Connect on Dema</li> <li>Keep Alive: Redia</li> </ul>	nd:Max Idle Time 5 Minutes.	
Application				
Administration	Optional Settings	Host Name:	Asante	
	(required by some Internet Service	Domain Name :	Asante	
	Providers)	MTU :	Auto Size: 1492	
	Network Setup			

SmartHub

WRT-300N

**Note:** Depending on the ISP, you may need to include the domain name with your username.

#### Example: username@sbcglobal.net

Step 3 Click Save Settings to save the settings.

You should be able to connect to the Internet now with the wired computer. If you have trouble connecting to the Internet, please refer to **Section 4**, **Verifying Connection**.

Connect each of your wired computers to an available LAN port on the Router with an Ethernet cable, and then restart the computer. These computers should be able to connect to the Internet immediately.

#### 4. Verifying Connection

If you have trouble connecting to the Internet, try the following steps.

Step 1 Power off the Cable/DSL modem, router, and computer and wait for 5 minutes.

**Step 2** Turn on the Cable/DSL modem and wait for the lights on the modem to settle down.

**Step 3** Turn on the router and wait for the lights on the router to settle down.

Step 4 Turn on the computer.

Step 5 Log in to the router and select the Status tab.

**Step 6** Verify that the **Internet IP Address**, **Default Gateway**, and at least one of the **DNS** fields have valid numbers assigned to them (instead of all 0's).

SmartHub

AWRT-300N

Asante 🕅

EZ Set Up		Router   Local Netwo	ork   Wireless Network	
Setup	Router Information	Firmware Version:	1.0.01	
Status		S/N	1234567890	Explain
Wireless		Current Time: Internet MAC Address:	Thu Nov 19 03:56:30 2009 (GMT -08:00) 00:21:00:78:4C:9D	
Firewall		Host Name:	Asante	
Access Policy	Internet Connection	Domain Name:	Asante	-;
Application		Connection Type: Internet IP Address	Automatic Configuration - DHCP 0.0.0.0	
Administration		Subnet Mask Default Gateway	0.0.0.0	
		DNS	0.0.0.0	
		МТО	Auto	
			IP Address Release IP Address Renew	
			Refresh	

If each field has a valid numbers(not all 0's) assigned, the router is connected to the Internet.

#### 5. Connecting to the Router Wirelessly

Below are the default wireless settings of the router. You must configure your wireless network card to the same settings in order to establish a wireless connection to the router. Please refer to your wireless network card's manual on how to configure these settings.

SSID: default Network Mode: BGN-Mixed Authentication: Open System Channel #: 6 WEP: disabled

If you want to change the router's wireless and security settings, log in to the router and select the **Wireless** tab. Click on **Manual** button. Click **Save Settings** to save the settings after you make changes.

Asant	e		Sma	RT-300N
EZ Set Up		Basic Wireless Settings   Wi	reless Security   Wireless MAC Filter   Advanced Wireless Settings	
Setup	Basic Wireless			
Status	Settings	Wireless Configuration:	Manual O Wi-Fi Protected Setup	Explain
Wireless		Network Mode:	BGN-Mixed  SmartHub-AWRT600N	
Firewall		Radio Band:	Auto - 20/40MHz Channel	
Access Policy		Standard Channel: Extension Channel:	Auto V	
Application		SSID Broadcast:	• Enabled O Disabled	
Administration				
			Save Settings Cancel Changes	

#### 6. Web Configuration Utility

This router has a built-in web configuration utility that you can use to configure the router's settings. Simply log in to the router using your computer's web browser.

#### 6.1 Setup

#### 6.1.1 Setup > Basic Setup

This is the default screen when you log in to the router's web configuration utility and select 'Advanced Set Up'. You can setup your Internet connection here as well as configuring the Network and DHCP server settings and selecting your Time Zone.

🕅 Asar	nte		5	AWRT-300N
EZ Set Up		Basic Setup   DONS   MA	AC Address Clone   Advanced Routing	
Setup	Internet Setup			
Status	Internet Connection Type	Static IP	<b>•</b>	Help Explain
Wireless	Optional Settings (required by some	Host Name:	Asante	
-	Providers)	Domain Name:	Asante	
Firewall		MTU:	Auto Size: 1500	
Access Policy	Network Setup			
Application	Router IP	IP Address:	192 . 168 . 1 . 1	
Administration		Subnet Mask :	295.255.295.0	
	DHCP Server Setting			_
		DHCP Server :	Enabled Disabled [DHCP Reservation]	
		Start IP Address :	192 . 168 . 1 . 100	
		Maximum Number of Users :	50	
		IP Address Range :	192 . 168 . 1 . 100 to 149	
		Ollent Lease Time :	0 minutes (0 means one day)	
		DNS :	0 - 0 - 0 - 0	
		WINS :	0 - 0 - 0	
	Time Bettings			
	Time Zone	(GMT-08:00) Pacific Time (L	JSA & Canada)	
		Automatically adjust clo	ock for daylight saving changes.	
			Bave Bettings Cancel Changes	

#### Internet Setup

There are six Internet Connection Types: DHCP, PPPoE, Static IP, PPTP, L2TP, and Telstra Cable.

#### **Automatic Configuration - DHCP**

When your ISP provides dynamic IP, you can keep this default setting (This is for most cable modem users). Usually you should be able to connect to the Internet without changing any configuration. If your ISP has provided you with a host name, enter it in the optional **Host Name** field. Click **Save Settings** to save the settings.

🕅 Asar	nte			SmartHub AVVRT-300N
EZ Set Up		Basic Setup   DDNS	8   MAC Address Clone   Advanced Routing	
Setup	Internet Setup			
Status	Internet Connection Type	Automatic Configura	tion - DHCP 💌	Help Explain
Wireless	Optional Settings (required by some	Host Name:	Asante	
Firewall	Internet Service Providers)	Domain Name: MTU:	Asante Auto Size: 1500	
Access Policy		-		
Application	Network Setup	IP Address:	192 . 168 . 1 . 1	
Administration	Router IF	Subnet Mask :	255.255.255.0	
		2		

#### **PPPoE**

Usually DSL service provider uses PPPoE for Internet connection. You will need to provide username and password given by your ISP to connect to the Internet.

7 Asar	nte			SmartHub AWRT-300N
EZ Set Up		Basic Setup   DDNS	MAC Address Clone   Advanced Routing	
Setup	Internet Setup	200. r		
Status	Туре	PPPOE		Explain
Wireless		Username : Password:		
Firewall		Service Name(Optiona	al);	
Access Policy		<ul> <li>Connect on Dema</li> <li>Keep Alive: Redia</li> </ul>	and:Max Idle Time 5 Minutes. al Period 30 Seconds.	
Application		湖		
Administration	Optional Settings (required by some	Host Name:	Asante	
	Internet Service Providers)	Domain Name : MTU :	Asante Size: 1492	

#### **Static IP**

Select Static IP if your ISP provided you the static IP address, Subnet Mask, Default Gateway and DNS server addresses for Internet connection.

Asan	ite		Sr	nartHub
EZ Set Up		Basic Setup   DDNS	MAC Address Clone   Advanced Routing	
Setup	Internet Setup			
Status	Internet Connection Type	Static IP	×	Help Explain
Wireless		Internet IP Address:	192 . 168 . 1 . 122	
		Subnet Mask:	255 255 255 0	
Firewall		Default Gateway:	192 168 1 1	
Access Roliau		DNS 1:	61 . 31 . 233 . 1	
Access Folicy		DNS 2(Options):	211 . 78 . 215 . 137	
Application		DNS 2(Options):	211 . 78 . 215 . 200	
Administration				-
	Optional Settings	Host Name:	Asante	
	(required by some Internet Service	Domain Name:	Asante	
	Providers)	MTU:	Auto 😪 Size: 1500	

#### **PPTP**

Point-to-Point Tunneling Protocol (PPTP) is a service that applies to connections in Europe only. Enter the Internet connection information provided by your ISP accordingly.

SmartHub AWRT-300N

		 	-	- Carlos - 1
100		 - 10	~	7.0
	_	 ~		

EZ Set Up		Basic Setup   DDNS   MAC Address Clone   Advanced Routing	
Setup	Internet Setup		
Status	Internet Connection Type	РРТР	Help Explain
Wireless		O Obtain an IP Address Automatically.	
Firewall		Specify an IP     0	
Access Policy		Default Gateway 0.0.0.0	
Application		DNS: 0 . 0 . 0	
Administration		Server IP Address: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	Optional Settings (required by some	Host Name: Asante	

#### L2TP

L2TP is a service that applies to connections in Israel only. Enter the Internet connection information provided by your ISP accordingly.

Asan	ite		SmartHub AWRT-300N
EZ Set Up		Basic Setup   DDNS   MAC Address Clone   Adv	anced Routing
Setup	Internet Setup		
Status	Internet Connection Type	L2TP	Help Explain
Wireless		Internet IP Address : 0 . 0 . 0 . 0 .	0
Firewall		Password:	
Access Policy		<ul> <li>Connect on Demand:Max Idle Time 5 Minut</li> <li>Keep Alive:Redial Period 30 Seconds.</li> </ul>	es.
Application		n malan provinsie al lan market in service in andre and the service in the service of the servic	
Administration	Optional Settings (required by some	Host Name: Asante	

#### **Telstra Cable**

Telstra Cable is a service that applies to connections in Australia only. Enter the Internet connection information provided by your ISP accordingly.

SmartHub

Asante 🕅

FZ Set Up		Basic Setup 1 DDNS	L MAC Address Clone, L Advanced Routing	
	Internet Setun		1	
Setup	internet setup		8	
Status	Internet Connection Type	Telstra Cable		Help Explain
Wireless		Internet IP Address : Username:		
Firewall		Password:		
Access Policy		<ul> <li>Connect on Dema</li> <li>Keep Alive:Redia</li> </ul>	and:Max Idle Time 5 Minutes. Il Period 30 Seconds.	
Application				
Administration	Optional Settings	Host Name:	Asante	
	Internet Service	Domain Name :	Asante	
	Providers)	MTU :	Auto V Size: 1500	

#### **Network Setup**

#### **Router IP**

You can change the Router's IP Address and its Subnet Mask for the local network.



#### **DHCP Server Setting**

The Router has a built-in DHCP server which can dynamically assign IP address to each device on your network. The **DHCP Server** is **Enabled** by default, if you already have a DHCP server on the network, you need to select **Disabled**.

DHCP Server Setting	DHCP Server: Start IP Address: Maximum Number of Users:	En	abled 168 .	<mark>) Disal</mark> 1 . 100	oled	DHCP Reservation
	IP Address Range:	192	. 168 .	1 . 100	to 14	19
	Client Lease Time:	0	minute	es (O me	ans (	one day)
	Static DNS 1:	0	. O	. 0		0
	Static DNS 2:	0	. 0	. 0	].	0
	Static DNS 3:	0	. 0	. 0		0
	WINS:	0	. 0	. 0	1	0

**Start IP Address:** Give a value for the dynamically assigning IP address to start with. Because the Router's default IP address is **192.168.1.1**, the Starting IP Address must be 192.168.1.2 or greater, but smaller than 192.168.1.253. The default Starting IP Address is **192.168.1.100**.

**Maximum Number of Users:** Enter the maximum number of PCs that you want the DHCP server to assign IP addresses to. This number cannot be greater than 253. The default is **50**.

**Client Lease Time:** The Client Lease Time is the amount of time a network user will be allowed connection to the Router with their current dynamic IP address. The default is 24 hours.

Static DNS 1~3: Enter up to 3 DNS addresses for your network.

**DHCP Reservation:** If you want to assign a static IP Address to one of the computers in your network, click on the **DHCP Reservation** button.

## Asante

DHCP Reservation							
Select Client from DHCP Tables	Client Name	Interface	IP A	ddress	MAC Address		Select
	Nghiep-Le-PC	LAN	192.1	68.1.100	00:1B:24:AA:	FA:A2	
						Add	Clients
Manually Add Client	Enter Client Name	Assign IP Add	iress	To This	MAC Addres	s	
		<b>192.168.1.</b> 0		00:00	0:00:00:00:00		Add
Clients Already Reserved							
	Client Name	Assign this IP	Т	o This M	AC Address	MAC	Address
	Save Settings	Cancel Changes	Re	fresh	Close		

Step 1 Enter the Static IP Address in the Assign this IP field.

Step 2 Enter the MAC address of the corresponding computer in the To this MAC field.

Step 3 Check the Add button.

Step 4 Click Save Settings.

#### **Time Settings**

Set up the time zone and daylight saving for the Router.

Time Settings Time Zone	(GMT-08:00) Pacific Time (USA & Canada)
	Save Settings Cancel Changes

#### 6.1.2 Setup > DDNS

Dynamic DNS (DDNS) allows any user who wishes to access your server to reach it by a registered DNS name instead of an IP address. Before you enable **DDNS**, you need to register an account with one of the DDNS providers listed in the drop-down menu.

🕅 Asant	e	SmartHub AWRT-300N
EZ Set Up	Basic Setup   DDNS   MAC Address Clone   Advanced Routing	
Setup	DDNS	
Status	DDNS Service Disabled V	Explain
Wireless		
Firewall		
Access Policy		
Application		
Administration		
	Save Settings Cancel Changes	

To Enable DDNS, select the DDNS provider you have registered with and enter the required fields. Click **Save Settings** to save the settings.

#### 6.1.3 Setup > MAC Address Clone

Some ISPs require a registered MAC address to access the Internet. You can use the following steps to clone your PC's registered MAC address to access the Internet.

🕅 Asai	nte			Sma	RT-300N
EZ Set Up		Basic Setup   DD	ONS   MAC Address Clone   Advanced Routing		
Setup	MAC Address Clone				11-1-
Status		• Enabled O Dis	abled		Explain
Wireless		MAC Address:	00 21 00 78 4C 9D		
Firewall			Clone My PC's MAC		
Access Policy					
Application					
Administration					
			Save Settings	Cancel Changes	

Step 1 Check the radio button Enabled .

- Step 2 Click the Clone My PC's MAC button.
- Step 3 Click Save Settings to save the settings.

#### 6.1.4 Setup > Advanced Routing

You can configure your own static routing table using the Advanced Routing function.

🗖 Asar	nte			SmartHub AWRT-300N
EZ Set Up		Basic Setup   DDNS   1	MAC Address Clone   Advanced Routing	
Setup	Advanced Routing			
Status	NAT	Enabled O Disabled	d	Explain
Wireless		2		
Firewall	Dynamic Routing (RIP)	O Enabled 💿 Disabled	d	
Access Policy	Static Routing	Route Entries:	1() V Delete This Entry	
Application		Enter Route Name:		
Administration		Subnet Mask:		
		Gateway:	0.0.0.0	
		Interface:	LAN & Wireless 💙	
		Show Routing Table		
			Save Settings Cancel Cha	nges

To see the current routing table, click on **Show Routing Table** button.

Be sure to click **Save Settings** to save each entry.

#### 6.2. Wireless

#### 6.2.1 Wireless > Basic Wireless Settings

Asant	e				Sma	RT-550N
EZ Set Up		Basic Wireless Settings   Wirel	less Security   V	Vireless MAC Filter   Advance	ced Wireless Settings	
Setup	Basic Wireless					
Status	Settings	Wireless Configuration:	O Manual	Wi-Fi Protected Setup		Help Explain
Wireless		Wi-Fi Protected Setup				
Firewall		Please check if your PC has sync up with Smarthub.:	WPS button. If	yes, there are 2 options. T	l hat you can easily	
Access Policy						
Application		1. If your PC has WPS button.P	Please click it and p	press below WPS		
Administration		2. If your PC has WPS PIN num	ber, Please enter r	number here	Enter	
0		Wi-Fi Protected Setup Status	s:	Configured		
		Network Name (SSID):		SmartHub-AWRT600N		
		Security:		Disabled		

#### Wireless Configuration - Manual

To configure the Wireless settings, click radio button Manual.

You can configure the router's basic wireless settings on this screen.

<b>A</b> sante			Sm	WRT-300N
EZ Set Up		Basic Wireless Settings   Wire	less Security   Wireless MAC Filter   Advanced Wireless Settings	5
Setup	Basic Wireless			Hala
Status	Settings	Wireless Configuration:	Manual O Wi-Fi Protected Setup	Explain
Wireless		Network Mode:	BGN-Mixed	
Firewall		Radio Band:	Auto - 20/40MHz Channel	
Access Policy		Standard Channel: Extension Channel:	Auto	
Application		SSID Broadcast:	Enabled      Disabled	
Administration				
			Save Settings Cancel Changes	

**Network Mode**: If you have 802.11b/g/n 2.4GHz devices on the wireless network, select **BGN-Mixed**. If you have 802.11a/n 5GHz devices on the wireless network, select **AN-Mixed**.

**Note:** If your wireless computer cannot detect the router after you selected AN-Mixed, please make sure your wireless adapter supports 5GHz frequency band.

**Network Name (SSID)**: You can change the router's SSID in this field. Once you have changed the SSID, your network clients need to re-connect themselves using the new SSID.

**Channel**: Select the desired channel. All the network clients need to use the same channel.

Radio Band: For best performance in a network, keep the default, Auto – 20/40MHz Channel.

**Standard Channel**: If you selected Auto – 20/40MHz Channel for the Radio Band setting, then this setting will be your primary Wireless N channel. If you are not sure which channel to select, keep the default, **Auto**.

**Extension Channel**: Select the extension channel for Wireless N extended radio band. If you are not sure which channel to select, keep the default, **Auto**.

**SSID Broadcast**: Choose to enable or disable the broadcast of your SSID (wireless network name).

#### 6.2.2 Wireless > Wireless Security

You can configure wireless security such as WPA2 or WEP encryption on this screen.

**Note**: WPA2 Personal is the most secured encryption mode for general users. WEP is the most common encryption but the least secured. It is recommended to use WPA2 Personal AES for your wireless security if all the wireless devices on your network support this mode. All of the wireless clients must use the same security settings in order to connect to the router.

#### WEP

To enable WEP, select **WEP** from the **Security Mode**.

EZ Set Up     Basic Wireless Settings   Wireless Security   Wireless MAC Filter   Advanced W       Setup     Wireless Security       Status     Security Mode:       Wireless     Encryption:       Firewall     Passphrase:       Access Policy     Key 1:	reless Settings Help Explain
Setup     Wireless Security       Status     Security Mode: WEP       Wireless     Encryption: 40 / 64-bit (10 hex digits)        Firewall     Passphrase: Generate       Access Policy     Key 1:	Help Explain
Status   Wireless   Firewall   Access Policy     Key 1:     WEP     WEP     WEP     Meret     Generate     Generate	Help Explain
Wireless     Encryption:     40 / 64-bit (10 hex digits)       Firewall     Passphrase:     Generate       Access Policy     Key 1:     Image: Comparison of the second	-
Firewall     Passphrase:     Generate       Access Policy     Key 1:	
Access Policy Key 1:	
Application Key 2:	
Administration Key 4:	
TX Key: 1 💽	
Save Settings Cancel	Changes

#### Encryption: Choose 64 bits or 128 bits

**Passphrase**: You can enter a passphrase and click on the **Generate** button and the router will automatically generate four WEP keys for you.

**WEP Key 1 – 4**: Manually assign a passphrase for each key. If you selected **64 bits** encryption, enter **10** HEX characters (0-F) for each key. If you selected **128 bits** encryption, enter **26** HEX characters (0-F) for each key.

**TX Key**: Select a key to be the active key.

Click **Save Settings** to save the settings.

#### **WPA Personal**

Select WPA Personal from the Security Mode.

M Asan	te				S	MartHub AWRT-300N
EZ Set Up		Basic Wireless Settings	Wireless Security   Wir	reless MAC Filter   Ad	vanced Wireless Setting	S
Setup	Wireless Security					1012
Status		Security Mode:	WPA Personal 🗸			Explain
Wireless			AFS W			
Firewall		Passphrase:				
Access Policy		Key Renewal:	3600 seconds			
Application						
Administration						
				Save Settings	Cancel Changes	

Encryption: Select either TKIP or AES as the encryption method.

Passphrase: Enter a passphrase between 8 to 63 characters long.

Key Renewal: Enter the desired key renewal time in seconds.

#### **WPA2 Personal**

Select WPA2 Personal from the Security Mode.

Asan	te				Sma	rtHub
EZ Set Up		Basic Wireless Settings	Wireless Security   Wireless M	AC Filter   Advanced Wirele	ss Settings	
Setup	Wireless Security					
Status		Security Mode:	WPA2 Personal 💙			Help Explain
Wireless						
Firewall		Passphrase:				
Access Policy		Key Renewal:	3600 seconds			
Application						
Administration						
			Save	Settings Cancel Cha	inges	

Encryption: Select either TKIP or AES as the encryption method.

Passphrase: Enter a passphrase between 8 to 63 characters long.

Key Renewal: Enter the desired key renewal time in seconds.

#### **WPA Enterprise**

Select WPA Enterprise from the Security Mode.

Asan	te		-	SmartHub AWRT-300N
EZ Set Up		Basic Wireless Settings	Wireless Security   Wireless MAC Filter   Advanced Wireless Settin	ngs
Setup	Wireless Security			
Status		Security Mode:	WPA Enterorise	Help Explain
Wireless				
Firewall		Encryption: RADIUS Server:	0.0.0	
Access Policy		RADIUS Port:	1812	
Application		Shared Secret:		
Administration		Key Renewal:	3600 seconds	
			Save Settings Cancel Changes	

Encryption: Select either TKIP or AES as the encryption method.

RADIUS Server: Enter the IP Address of your RADIUS server.

**RADIUS Port**: Enter the port number of your RADIUS server.

Shared Secret: Enter the shared key.

Key Renewal: Enter the desired key renewal time in seconds.

#### **WPA2 Enterprise**

Select WPA2 Enterprise from the Security Mode.

🕅 Asant	te					2	SmartHub AWRT-300N
EZ Set Up		Basic Wireless Settings	Wireless Securi	ity   Wireles	is MAC Filter   A	Advanced Wireless Settin	gs
Setup	Wireless Security						Itala
Status		Security Mode:	WPA2 Perso	onal 💌			Explain
Wireless			TKIP or AES				
Firewall		Encryption: Passphrase:	TRIP OF AES		]		
Access Policy		Key Renewal:	3600	seconds			
Application							
Administration							
				S	ave Settings	Cancel Changes	

**Encryption**: Select either **TKIP** or **AES** as the encryption method.

RADIUS Server: Enter the IP Address of your RADIUS server.

**RADIUS Port**: Enter the port number of your RADIUS server. Default is 1812.

Shared Secret: Enter the shared key.

Key Renewal: Enter the desired key renewal time in seconds.

#### **Radius**

This option features WEP used in coordination with a RADIUS server. (This should only be used when a RADIUS server is connected to the Router.)

EZ Set Up		Basic Wireless Settings	Wireless Security   Wireless MAC Filter   Advanced Wireless Settings	
Setup	Wireless Security			
Status		Security Mode:	RADIUS	Explain
Wireless		DADUS Secon		
Firewall		RADIUS Server.	1812	
Access Policy		Shared Secret:		
Application			40 / 84_bit (10 bev dinite)	
Administration		Passphrase:	Generate	
		Key 1:		
		Key 2:		
		Key 4:		
		TX Key:	1 💌	
			Save Settings Cancel Changes	

**Encryption Methods**: Select either **TKIP** or **AES** as the encryption method.

**RADIUS Server**: Enter the IP Address of your RADIUS server.

**RADIUS Port**: Enter the port number of your RADIUS server.

Shared Secret: Enter the shared key.

Encryption: Select a level of WEP encryption, 64 bits 10 hex digits or 128 bits 26 hex digits. The default is 64 bits 10 hex digits.

**Passphrase**: Enter a Passphrase to automatically generate WEP keys. Then click **Generate**.

**Key 1-4**: If you did not enter a Passphrase, enter the WEP key(s) manually.

**Tx Key**: Select a key from the drop-down menu.

#### Wireless Configuration - WiFi-Protected Setup

To use Wi-Fi Protected Setup, click on **WiFi-Protected Setup** radio button in '**Basic Wireless Settings**' page.

Asan	ite				Smai	T-300N
EZ Set Up		Basic Wireless Settings   Wirel	ess Security   V	Vireless MAC Filter   Advanced Wire	less Settings	
Setup	Basic Wireless					Holp
Status	Settings	Wireless Configuration:	O Manual	Wi-Fi Protected Setup		Explain
Wireless		Wi-Fi Protected Setup				
Firewall		Please check if your PC has sync up with Smarthub.:	WPS button. If	yes, there are 2 options. That you	u can easily	
Access Policy						
Application		1. If your PC has WPS button.P	lease <mark>click it and</mark> ;	press below WPS		
Administration		2. If your PC has WPS PIN numb	ber,Please enter r	number here Enter		
		Wi-Fi Protected Setup Status	s:	Configured		
		Network Name (SSID):		SmartHub-AWRT600N		
		Security:		Disabled		

WiFi Protected Setup supports two types of connection: Push Button Configuration (PBC) or Personal Identification Number (PIN).

If you choose to use **PBC** on your client device to connect to the router, click on the WPS software button

If you choose to use **PIN** on your client device, you need to enter the PIN number generated by the client device into the blank and click **Register**.

#### Connecting to the Router with WPS Push Button (Optional)

AWRT-300N Wireless N Router supports hardware WiFi-Protected Setup (WPS) push button which allows you to connect your wireless computer with the router safely and easily. Your wireless adapter must support this feature as well. If not, you will need to set up the wireless security manually.

#### 3 Wireless > MAC Filter

You can restrict certain wireless clients from accessing the router by specifying their MAC address and enabling access restriction.

🕅 Asan	te					SmartHub	
EZ Set Up		Basic Wireless Settings	Settings   Wireless Security	Wireless	MAC Filter   Advanced Wirek	0.55	
Setup Status	Wireless MAC Filter Access Restriction	C Enabled	Disabled			Help Explain	
Wireless	IAC Address Filter List	Prevent P     Permit PC     Wireless (	Us listed below from accessing is listed below to access the will Dilent List	eless netv	isinetwork:		
Firewall		MAC 1:	00.00.00.00.00	MAC 25:	00:00:00:00:00:00		
Application		MAC 3:	00:00:00:00:00:00	MAC 28: MAC 29:	00:00:00:00:00:00		
Administration		MAC 5:	00:00:00:00:00:00	MAC 30: MAC 31:	00:00:00:00:00:00		
		MAC 7:	00:00:00:00:00:00	MAC 32: MAC 33:	00:00:00:00:00		
		MAC 9: MAC 10:	00:00:00:00:00:00	MAC 34: MAC 35:	00-00-00-00-00-00		
		MAC 11: MAC 12:	00:00:00:00:00:00	MAC 36: MAC 37:	00:00:00:00:00:00		
		MAC 13: MAC 14:	00:00:00:00:00:00	MAC 38: MAC 39:	00:00:00:00:00:00		
		MAC 15: MAC 16:	00:00:00:00:00:00	MAC 40: MAC 41:	00:00:00:00:00:00		
		MAC 17: MAC 18:	00:00:00:00:00:00	MAC 42: MAC 43:	00:00:00:00:00:00		
		MAC 19: MAC 20:	00:00:00:00:00	MAC 44: MAC 45:	60-00-00-00-00-00		
		MAC 21: MAC 22:	00:00:00:00:00:00	MAC 46: MAC 47:	00:00:00:00:00:00		

Select **Enabled** and choose whether the specified wireless clients will be prevented or permitted to access the wireless network. Enter their MAC address in the fields below and click **Save Settings** to save the settings.

#### 6.2.4 Wireless > Advanced Wireless Settings

You can configure various advanced wireless settings on this screen.

<b>A</b> san	ite		S	AWRT-300N
EZ Set Up		Basic Wireless Settings   Wireless Se	ecurity   Wireless MAC Filter   Advanced Wireless Settin	igs
Setup	Advanced Wireless			
Status		AP Isolation:	O Enabled (Default: Disabled)	Help Explain
Wireless		Frame Burst:	Enabled O Disabled (Default: Enabled)	
Firewall		Authentication Type:	Auto (Default: Auto)	
Access Policy		Basic Rate:	Default Y (Default: Default)	
		Transmission Rate:	Auto (Default:Auto)	
Application		N Transmission Rate:	Auto (Default:Auto)	
Administration		CTS Protection Mode:	Auto 💙 (Default: Auto)	
Administration				
		Beacon Interval:	100 (Default: 100, Milliseconds,Range: 20~999	)
		DTIM Interval:	1 (Default: 1, Range: 1 - 255)	
		Fragmentation Threshold:	2346 (Default: 2346, Range: 256 - 2346)	
		RTS Threshold:	2347 (Default: 2347, Range: 0 - 2347)	
			Save Settings Cancel Changes	

**AP Isolation:** This isolates all wireless clients and wireless devices on your network from each other. Wireless devices will be able to communicate with the Router but not with each other. To use this function, select **Enabled**.

**Frame Burst:** Frame Burst allows packet bursting which will increase overall network speed.

Authentication Type: The default is set to Auto, which allows either Open System or Shared Key authentication to be used. With **Open System** authentication, the sender and the recipient do NOT use a WEP key for authentication. With **Shared Key** authentication, the sender and recipient use a WEP key for authentication. **Basic Rate:** The Basic Rate setting is not one, but a series of rates at which the Router can transmit. (The Basic Rate is not the actual rate of data transmission. If you want to specify the Router's rate of data transmission, configure the Transmission Rate setting.)

**Transmission Rate:** The rate of data transmission should be set depending on the speed of your wireless network.

**CTS Protection Mode:** CTS (Clear-To-Send) Protection Mode should remain disabled unless you are having severe problems with your wireless products not being able to transmit to the Router in an environment with heavy latency wireless traffic. This function boosts the Router's ability to catch all wireless transmissions but will severely decrease performance.

**Beacon Interval:** A beacon is a packet broadcast by the Router to synchronize the wireless network.

**DTIM Interval:** This value, between 3 and 255, indicates the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the Router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. Its clients hear the beacons and awaken to receive the broadcast and multicast messages. The default value is **1**.

**Fragmentation Threshold:** This value specifies the maximum size for a packet before data is fragmented into multiple packets. If you experience a high packet error rate, you may slightly increase the Fragmentation Threshold. Setting the Fragmentation Threshold too low may result in poor network performance. Only minor reduction of the default value is recommended. In most cases, it should remain at its default value of **2346**.

**RTS Threshold:** Should you encounter inconsistent data flow, only minor reduction of the default value, **2347**, is recommended. If a network packet is smaller than the preset RTS threshold size, the RTS/CTS mechanism will not be enabled. The Router sends Request to Send (RTS) frames to a particular receiving station and negotiates the sending of a data frame. After receiving an RTS, the wireless station responds with a Clear to Send (CTS) frame to acknowledge the right to begin transmission. The RTS Threshold value should remain at its default value of **2347**.

#### 6.3 Security

#### 6.3.1 Security > Firewall

Asant	e	Sr	MATT SOON
EZ Set Up		Firewall	
Setup	SPI Firewall	SPI Firewall Protection:	
Status	Protection	nabled O Disabled	Help Explain
Wireless	Internet Filter	Filter Anonymous Internet Requests	
Firewall		Filter Multicast	
Access Policy		Filter IDENT (Port 113)	
Application	Web Filter	Proxy Java ActiveX Cookies	
Administration			
		Save Settings Cancel Changes	

**SPI Firewall Protection**: Select to enable or disable Stateful Packet Inspection. When enabled, access to the router from internet/wan by various protocols like ICMP are denied.

**Internet Filter**: Place a check to enable various Internet filter including Anonymous Internet Requests, Multicast packets, NAT Redirection, and IDNT port.

Web Filters: You can select to filter Proxy, Java, ActiveX, and/or Cookies.

#### 6.4 Access Restrictions

#### 6.4.1 Access Restrictions > Internet Access Policy

You can setup policies that deny or allow specific clients to access the internet.

Asant	e	Si	MartHub AWRT-300N
EZ Set Up		Internet Access Policy	
Setup	Internet Access Policy		
Status		Access Policy: 1() Delete This Entry Summary	Help Explain
Wireless		Enter Policy Name:	_
Firewall		Status: O Enabled  O Disabled	
Access Policy	Applied PCs	Edit List (This Policy applies only to PCs on the List.)	
Application		O Deny	_
Administration	Access Restriction	Allow Internet access during selected days and hours.	_
	Schedule	Days: ✔ Everyday   Sun   Mon   Tue   Wed   Thu   Fri   Sat	
		Timing Control:  24 Hours  0  1  1  1  1  1  1  1  1  1  1  1  1  1	
	Website Blocking by URL Address	URL 1: URL 2: URL 3: URL 3:	
	by URL Address	URL 4:	-

Access Policy: Select a policy number from the drop down list.

Enter Policy Name: Enter a name for the policy.

Status: Choose to Enable or Disable the selected policy.

#### Applied PCs

Click on the **Edit List** button to specify the network clients. Policy only applies to the PCs that are in the list.

intel DOG				
	01	00-00-00-00-00-00	0.0	00-00-00-00-00-00
AC Address	UT	00.00.00.00.00	00	00.00.00.00.00
	02	00:00:00:00:00:00	07	00:00:00:00:00
	03	00:00:00:00:00		00:00:00:00:00:00
	04	00:00:00:00:00:00	09	00:00:00:00:00:00
	05	00:00:00:00:00:00	10	00:00:00:00:00
IP Address	01	192. 168. 1. 0	04	192. 168. 1. 0
	02	192. 168. 1. 0	05	192. 168. 1. 0
	03	192. 168. 1. 0	06	192. 168. 1. 0
IP Address	01	192. 168. 1. 0 ~ 0	03	192. 168. 1. 0 ~ 0
Range	02	192. 168. 1. 0 ~ 0	04	192. 168. 1. 0 ~ 0

You can specify each client by its MAC Address or IP Address. You can also specify a group of clients by entering their IP Address Range. Once you have specified all the clients, click **Save Settings**.

#### **Access Restriction & Schedule**

Select to **Deny** or **Allow** the specified clients to access the Internet by **Day** and **Time**.

Schedule	Days: 💟 Everyday	Sun Mon Tue Wed Thu Fri Sat
	Timing Control: <sup>(24</sup> Hours	© 0

s	Setup	Internet Access Policy		
s	tatus		Access Policy: 1() V Delete This Entry Summary	Heip Explain
Wi	ireless		Enter Policy Name:	
Fi	rewall		Status: O Enabled O Disabled	
Website Bloc by URL Addr	king ress	URL 3:	URL 4:	
Website Bloc	king	Keyword 1:	Keyword 2:	
by Keyw	/ord	Keyword 3:	Keyword 4:	

#### 🖬 Asante

EZ Set Up		Internet Access Policy	
Setup	Internet Access Policy		
Status		Access Policy: 1() V Delete This Entry Summary	Heip Explain
Wireless		Enter Policy Name:	
Firewall		Status: O Enabled O Disabled	
Access Policy	Applied PCs	Edit List (This Policy applies only to PCs on the List.)	
Application		O Deny	
Administration	Access Restriction	<ul> <li>Allow Internet access during selected days and hours.</li> </ul>	

SmartHub AWRT-300N

#### **Blocked Applications**

After you selected **Allow** Internet accessing for Access Restriction, you can configure the Internet applications you want to block.

Select application port you want to block and click >> button to add it into Blocked List when the specified PCs have Internet access. Click << button to remove applications from the Blocked List.

If you have a custom application, manually enter its name, port range, protocol and click **Add** to add it into the "Applications" List

Access Restriction	Deey     Allow Internet access during selected days and hours.								
Schedule	Deys: 🗹 Everyday 🛛 Sun 🗌 Mon 🗌 Tue 🗌 Wed 🗌 Thu 🔤 Pri 🗌 Set								
	Timing Control:   24 Hours	0 • •	0 💙 to 0 🚩:	o 💉					
Website Blocking by URL Address	URL1:	URL2: [	, .	RL 3:					
Website Blocking by Keyword	Keyword 1:	Key	word 2:						
Blocked Applications	Keyword 3:	Key	word 4:						
Note: Only three applications can be blocked per policy.									
	Applications		Blooked List						
	DNS (53-53) HTTP (40-00) HTTP (443-443) FTP (21-21) IMAP (145-143) SMTP (25-25) NNTP (119-119) SNJP (161-161) Teinet (23-23) Game (100-1200) Ping (0-0)	8							
	Application Name Port Range Protocol Tcl [Add] [Mostly] [Dete								
			Bave Bettings	Cancel Changes					

#### 6.5 Applications & Gaming

#### 6.5.1 Applications & Gaming > Single Port Forwarding

If you want to host ftp server or online gaming, you must open up ports on the router. This page allows you to setup single port forwarding for the specified applications.

**Note**: Before using forwarding, you should assign static IP addresses to the designated PCs.

		DMZ   QoS	Forwarding	ding   Port Range	Single Port Forward		EZ Set Up
Usla	Enabled	To IP address	Protocol	Internal Port	External Port	Single Port Forwarding	Setup
Explain		192 . 168 . 1 . 0		-		None M	Status
		192 . 168 . 1 . 0				None	Windows
		192 . 168 . 1 . 0			7772	None	VVRENESS
		192 168 1 0				None M	Firewall
		192 . 168 . 1 . 0		-			
		192 . 168 . 1 . 0	Both 💙	0	٥		Access Policy
		192 168 1 0	Both 💙	0	0		Application
		192 . 168 . 1 . 0	Both 🚩	0	0		
		192 . 168 . 1 . 0	Both 💙	0	0		Administration
		192 . 168 . 1 . 0	Both 💙	0	0		
		192 . 168 . 1 . 0	Both 💙	0	D		
		192 . 168 . 1 . 0	Both 💙	0	0		
		192 . 168 . 1 . 0	Both 💙	0	0		
		192 . 168 . 1 . 0	Both 💙	0	0		
		192 . 168 . 1 . 0	Both 💙	0	0		

Application Name: Select or enter an Application Name.

**External Port/ Internal Port**: If you are only forwarding one port, you can put the same port number in both the **External** and **Internal** Port boxes.

Protocol: IP protocol to forward.

**To IP Address:** This should be the IP address of the computer you want to forward the ports to.

Make sure that you check the **Enabled** box to activate the setting, then click **Save Settings** to save the settings.

#### 6.5.2 Applications & Gaming > Port Range Forwarding

If you want to host ftp server or online gaming, you must open up ports on the router. This page allows you to setup port range forwarding for the specified applications.



Asant	e						SmartHub AWRT-300N
EZ Set Up		Single Port	Forwarding   Po	ort Range Forward	ding   DMZ   QoS		
Setup	Port Range Forwarding						Help
Status	Application Name	Start ~	End Port	Protocol	To IP address	Enabled	Explain
		0	to 0	Both 💌	192.168.1.0		
Wireless		0	to 0	Both 🛩	192.168.1.0		
Firewall		0	to 0	Both 💙	192.168.1.0		
		0	to 0	Both 🛩	192.168.1.0		
Access Policy		0	to 0	Both 💌	192.168.1.0		
Application		0	to 0	Both 💙	192.168.1.0		
Application		0	to 0	Both 💌	192.168.1.0		
Administration		0	to 0	Both 💙	192.168.1.0		
		0	to 0	Both 💌	192.168.1.0		
		0	to 0	Both 💙	192.168.1.0		
					Save Settings	Cancel Chan	ges

Application Name: Enter an Application Name.

**Start ~ End Port**: If you are only forwarding one port, you can put the same port number in both the **Start** and **End** Port boxes.

Protocol: If you are not sure which protocol to choose, select both.

**To IP Address:** This should be the IP address of the computer you want to forward the ports to.

Make sure that you check the **Enabled** box to activate the setting, then click **Save Settings** to save the settings.

#### 6.5.3 Applications & Gaming > DMZ

DMZ (De-Militarized Zone) is a host without the protection of the router's firewall. It allows a computer to be exposed to unrestricted two-way communication with the Internet. You should only use this feature when the Port Forwarding function fails to make an application work.

**Warning:** Setting your computer as a DMZ host exposes it to various security vulnerabilities. This feature should be used only when needed.

Asan	ite		Sm	artHub
EZ Set Up	Si	ingle Port Forwardir	ing   Port Range Forwarding   DMZ   QoS	
Setup	DMZ			
Status	DN	IZ Configuration:	Enabled O Disabled	Help Explain
Wireless	So	urce IP Address:	Any IP Address	
Firewall			O O . O . O to O	
Access Policy	De	stination:	IP Address: 192. 168. 1.	
Application			MAC Address: 00:00:00:00:00	
Administration				
			Save Settings Cancel Changes	

DMZ: Select to enable or disable DMZ.

**Source IP Address**: Specify the IP address that can communicate with the DMZ host.

Destination: Specify the IP Address or MAC Address of the DMZ host.

**Note**: Any DMZ host should have a new static IP address assigned to it because its IP address may change when using the DHCP function.

Click **Save Settings** to save the settings.

#### 6.5.4 Applications & Gaming > QoS

QoS (Quality of Service) manages information as it is transmitted and received. It ensures better service to those applications with a higher priority.

🕅 Asai	nte		SmartHub
EZ Set Up		Single Port Forwarding   Port Range Forwarding   DMZ   QoS	
Setup	QoS (Quality of Service)	WARM Street	Hele
Status	Wireless	No Acknowledgement: O Enabled ( Disabled (Default: Enabled)	Explain
Wireless			
Firewall	Internet Access Priority Category	Enabled      Disabled     Applications	
Access Policy		Applications MSN Messenger	
Application		Priority Medium (Recommend)	
Administration		Add	
	Summary	Priority Name Information	
		Save Settings Cancel Cha	inges

#### <u>Wireless</u>

**WMM Support**: WMM is a wireless Quality of Service feature that improves quality for audio, video, and voice applications by prioritizing wireless traffic. To use this feature, your wireless client devices in your network must support Wireless WMM.

**No Acknowledgement**: If you want to disable the Router's Acknowledgement feature, so the Router will not re-send data if an error occurs, select Enabled. Otherwise, keep the default, Disabled.

#### Internet Access Priority

**Enabled/Disabled**: To use the QoS policies you set, select Enabled. Otherwise, select Disabled.

#### **Category**

There are five categories available. Select one of the following: Applications, Online Games, MAC Address, Ethernet Port, or Voice Device.

#### **Applications**

<b>%</b> Asar	nte		SmartHub AWRT-300N
EZ Set Up		Single Port Forwarding   Port Range Forwarding   DMZ   QoS	
Setup	QoS (Quality of Service)	WMM Support:      Exclude O Dischlad (Default Secklad)	Help
Status	Wireless	No Acknowledgement: O Enabled (Default: Disabled)	Explain
Wireless			-
Firewall	Internet Access Priority Category	Enabled O Disabled     Applications	
Access Policy		Applications MSN Messenger	
Application		Add	
Administration			
	Summary	Priority Name Information	
		Save Settings Cancel Changes	

**Applications**: Select the appropriate application. If you select *Add a New Application*, follow the instructions in the "Add a New Application "section.

**Priority**: Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes. Your new entry will appear in the Summary list.

#### Add a New Application

🕅 Asar	nte					Sr	MATT-300N
EZ Set Up		Single Port Forwardi	ing   Port Rang	e Forwarding   DMZ	QoS		
Setup	QoS (Quality of Service)	WMM Support:	Enabled	Disabled (Defe	ult. Eachlad)		Help
Status	Wireless	No Acknowledgemen	t: O Enabled	I 💿 Disabled (Defau	lt: Disabled)		Explain
Wireless							-
Firewall	Internet Access Priority Category	Enabled O     D     Applications	isabled				
Access Policy		Applications	MSN Messenger	~			
Application		Priority	Medium (Recom	mend) 💌			
Administration							
	Summary	Priority	Name	Information			
				Save Set	tings Ca	ncel Changes	

Enter a Name: Enter a name for this application.

**Port Range:** Enter the port range that the application will be using. For example, if you want to allocate bandwidth for FTP, you can enter 21-21. Select the protocol **TCP** or **UDP**, or select **Both**.

**Priority:** Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes.

🛛 Asar	nte						SmartHub AWRT-300N
EZ Set Up		Single Port Forw	arding   Port Range	e Forwarding   DMZ	QoS		
Setup	QoS (Quality of Service)	WMM Support:	Carbled	O Bisselved (Defe	(h. Eachlad)		Hala
Status	Wireless	No Acknowledger	ment: O Enabled	<ul> <li>Disabled (Default)</li> <li>Disabled (Default)</li> </ul>	lt: Disabled)		Explain
Wireless							
Firewall	Internet Access Priority Category	Enabled Online Games	Disabled				
Access Policy		Games	Counter Strike	~			
Application		Priority	Medium (Recomme	nd) 💌			
Administration							
	Summary	Priority	Name	Information			
				Save Sett	ings Ca	ncel Change	5

**Games:** Select the appropriate game.

**Priority:** Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes.



🕅 Asar	nte					Sm	artHub RT-300N
EZ Set Up		Single Port Forwa	rding   Port Rang	e Forwarding   DMZ	QoS		
Setup	QoS (Quality of Service)	WMM Support:	Cashier	Disabled (Defe	ult. Fachlad)		Help
Status	Wireless	No Acknowledgem	ent: O Enabled	i 💿 Disabled (Defau	It: Disabled)		Explain
Wireless							
Firewall	Internet Access Priority Category	<ul> <li>Enabled</li> <li>Online Games</li> </ul>	Disabled				
Access Policy		Games (	Counter Strike	~			
Application		Priority 1	Add	end) 🔽			
Administration							
	Summary	Priority	Name	Information			
				Save Sett	tings Can	cel Changes	

Enter a Name Enter a name for your network device.

**MAC Address** Enter the MAC address of your network device.

**Priority** Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes.



🖬 Asar	nte	Sm	WRT-300N
EZ Set Up		Single Port Forwarding   Port Range Forwarding   DMZ   QoS	
Setup	QoS (Quality of		
Status	Wireless	No Acknowledgement: O Enabled (Disabled (Default: Enabled)	Help Explain
Wireless			-
Firewall	Internet Access Priority Category	Enabled Disabled     Ethernet Port	
Access Policy		Ethernet Ethernet Port 1	
Application		Priority Ethernet Port 1 Ethernet Port 2 Ethernet Port 3	
Administration		Ethernet Port 4	
	Summary	Priority Name Information	
		Save Settings Cancel Changes	

**Ethernet:** Select the Ethernet port that you want to configure.

**Priority:** Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes.

Asar	nte	S	MartHub AWRT-300N
EZ Set Up		Single Port Forwarding   Port Range Forwarding   DMZ   QoS	
Setup	QoS (Quality of Service)		Usia
Status	Wireless	No Acknowledgement: C Enabled (Default: Disabled)	Explain
Wireless			-
Firewall	Internet Access Priority Category	Enabled Oisabled     Voice Device Wy Current PC's MAC Address:00:23:8B:F9:AC:7F	
Access Policy		Enter a Name	
Application		MAC Address 00:00:00:00 Priority High (Recommend)	
Administration		Add	
	Summary	Priority Name Information	
		Save Settings - Canad Changes	
		Save Settings Cancer Changes	

Enter a Name: Enter a name for your voice device such as VoIP or IP Phone.

MAC Address: Enter the MAC address of your voice device.

**Priority:** Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes.

Click Save Settings to save the settings.

#### **Summary**

Summary shows the configuration for various application priorities. You can Remove or Edit the configuration from this list.

#### 6.6 Administration

#### 6.6.1 Administration > Management

The Management screen allows you to change the router's log in password as well as other administrative settings.

M Asant	e			SmartHub AWRT-300N
EZ Set Up		Management   Log   Diagnostics	Factory Defaults   Firmware Upgrade	
Setup	Management			
Status	EZ Setup	EZ Setuo:	• Enabled C Disabled	Explain
Wireless				_
Firewall	Web Access	Web Utility Access:		
Firewaii		Web Utility Access via Wireless:	€ Enabled	
Access Policy	Repote Access			_
Application	10100000	Remote Management	C Enabled (* Disabled	
		Renote Upgrade:	© Foshled © Diesbled	
dministration		Allow Remote IP Address:	Any IP Address	
		Remote Management Port:	@ 0_,0_,0_to 0 8080	
	UPnP	UPnP:	• Enabled C Disabled	
		Allow Users to Configure:	• Enabled C Disabled	
		Allow Users to Disable Internet Access:	C Enabled 🖲 Disabled	
	Backup and Restore	Backup Configurations	Restore Configurations	
			Save Settings Cancel Ch	anges

**EZ Setup**: Select to enable or disable **EZ Setup**. If **EZ Setup** is disabled, the user is allowed to access internet whenever he/she is connected to the router. If enabled, the user is required to enter username/password to access the internet.

**Web Access**: Select to enable or disable HTTPs and Wireless access for the Web Configuration Utility.

**Remote Access**: Select to enable or disable remote management/upgrade of the router. You can allow remote management from any IP Address or a specified IP Address as well as the port number.

**Backup and Restore Configurations**: You can choose to backup the router's settings so that you don't have to manually configure the settings again if you reset the router to factory default.

**UPnP**: Universal Plug and Play (UPnP) allows Windows Me and XP to automatically configure the router for various Internet applications, such as gaming and videoconferencing.

#### 6.6.2 Administration > Log

You can choose to **Enable** or **Disable** logging of your network activity on this screen. Click **Save Settings** to save the settings.

Asante	Sm	artHub /RT-300N
EZ Set Up	Management   Log   Diagnostics   Factory Defaults   Firmware Upgrade	
Setup	Log 💿 Enabled 🔿 Disabled	Help
Status	View Log	Explain
Wireless		
Firewall		
Access Policy		
Application		
Administration		
	Save Settings Cancel Changes	

#### 6.6.3 Administration -> Diagnostics

The Diagnostics screen allows you to perform Ping and Traceroute tests.

Asante	2			SmartHub
EZ Set Up		Management   Log	Diagnostics   Factory Defaults   Firmware Upgrade	
Setup	Diagnostics			
Status	Ping Test	IP or URL Address: Packet Size:	32 bytes (32~85500)	Help Explain
Wireless		Times to Ping:	5	
Firewall	Traceroute Test	10	Start to Ping	
Access Policy		IP of URL Address	Start to Traceroute	
Application				
Administration				
			Save Settings Cancel Ch	anges

**Ping Test**: Enter the IP or URL Address you wish to ping and click **Start to Ping**.

**Traceroute**: Enter the IP or URL Address you wish to trace and click **Start to Traceroute**.

#### 6.6.4 Administration > Factory Defaults

The Factory Defaults screen allows you to set all the router's settings to the factory default.

Asanto		SmartHub ANT-300N
EZ Set Up	Management   Log   Diagnostics   Fa	otory Defaults   Firmware Upgrade
Setup	Factory Defaults Restore Factory Defaults	
Status		Heip Explain
Wireless	網頁副息	
Firewall	Restore to Fac	tory Defaults?
Access Policy	確定	<u>夜消</u>
Application		
Administration		

Click on the **Restore Factory Defaults** button to restore all the settings to default and click **OK** to continue.

#### 6.6.5 Administration > Firmware Upgrade

The Firmware Upgrade screen allows you to upgrade the router's firmware.

Asan	te			SmartHub AVVRT-300N
EZ Set Up		Management   Log   Diagnostics	Factory Defaults   Firmware Upgrade	
Setup	Firmware Upgrade			
Status				Help Explain
Wireless		Check For New Firmware Version :	Check For New Firmware Version	
Firewall		Please select a file to opgraue.	Start to Upgrade	
Access Policy		Warning: Upgrading firmware may ta	ake a few minutes, please don't turn off	
Application		the power of press the res		
Administration			0%	
		Upgrade mus	t NOT be interrupted !!	

You must download and unzip the new firmware first from <u>www.asante.com</u>

Click on Browse to browse to the new firmware, and click Start to Upgrade.

#### 6.7 Status

#### 6.7.1 Status > Router

The Router screen displays various status of the router including the firmware version.

🕅 Asar	nte			SmartHub AWRT-300N
EZ Set Up		Router   Local Netwo	rk   Wireless Network	
Setup	Router Information	Firmware Version	1.0.01	
Status		S/N:	1234567890	Help Explain
Wireless		Current Time: Internet MAC Address:	Thu Nov 19 03:21:03 2009 (GMT -08:00) 00:21:00:78:4C:9D	
Firewall		Host Name:	Asante	
Access Policy		Domain Name:	Asante	
Application	Internet Connection	Connection Type:	Automatic Configuration - DHCP	
Administration		Subnet Mask	0.0.0.0	
		Default Gateway	0.0.0.0	
		МТО	Auto	
			IP Address Release IP Address Renew	
			Refresh	-

Click on the **Refresh** button to reload the screen.

#### 6.7.2 Status > Local Network

The Local Network screen displays various status about your Local Area Network.

🕅 Asant	e			Sm	ART-300N
EZ Set Up		Router   Local Networ	k   Wireless Network		
Setup	Local Network				
Status		Local MAC Address:	00:21:00:78:4C:9C		Help Explain
Wireless		Router IP Address: Subnet Mask:	192.168.1.1 255.255.255.0		
Firewall					
Access Policy		5			
Application	DHCP Server	DHCP Server:	Enabled		
Administration		Start IP Address	192.168.1.100		
		End IP Address	192.168.1.149		
			_		
		DHCP Client Table		Refresh	

Click on the **DHCP Client Table** to display a list of all the DHCP clients in your network.

# Client Name Interface IP Address MAC Address Expired Time Katie\_Tung-NB01 LAN 192.168.1.100 00:23:8B:F9:AC:7F 22hr:1min:59sec Refresh Close

#### **Asante**

Delete

#### 6.7.3 Status > Wireless Network

The Wireless Network screen displays various status about your wireless network.

🕅 Asar	ite			Sma	RT-300N
EZ Set Up		Router   Local Network	k   Wireless Network		
Setup	Wireless Network				Usta
Status		MAC Address:	00:21:00:78:4C:9C		Explain
Wireless		Mode: Network Name (SSID):	BGN-Mixed SmartHub-AWRT600N		
Firewall		Radio Band:	Auto - 20/40MHz Channel		
Access Policy		Standard Channel: Extension Channel:	Auto Auto		
Application		Firewall: SSID Broadcast:	Disabled Enabled		
Administration				Refresh	

#### 7. Specifications

#### Standards

- □ IEEE 802.11n draft 2.0
- □ IEEE 802.11a / b / g

#### Frequency

□ 2.4 / 5 GHz (Switchable)

#### Ports

- □ 1 x 10/100Mbps WAN port
- $\Box$  4 x 10/100Mbps LAN port

#### Antenna type

□ 3 Internal 2 dBi antennas

#### Security

- □ WPA2, WPA, WEP 64/128-bit
- □ Wireless MAC Filter
- □ AP Isolation

#### LEDs

Power, Internet, Wireless, LAN1~4, Warranty WPS

#### Advanced Features

- □ Quality of Service (QoS)
- □ Stateful Packet Inspection (SPI) / DoS
- □ VPN Pass-through
- UPnP

#### WiFi Protected Setup

- PIN (Personal Identification Number)
- □ PBC (Push button configuration)

#### System Requirement

- □ Windows®, Mac®, or Linux® operating system
- □ Installed Ethernet adapter
- □ Recommended use with AWLL7025

#### Power

- □ Input: 100~240V AC, 50~60Hz
- Output: 12V / 1A

#### Dimensions

□ 179 x 132 x 28 mm

#### Temperature

□ Operating: 0°C to 40°C

#### **Humidity**

- □ 10% to 95% Non-Condensing
- - □ Limited 1-year warranty

#### Certification

□ FCC, CE, C-Tick, UL, TUV

#### App Appendix – Information

#### Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**FCC Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### IMPORTANT NOTE: FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

SAR compliance has been established in typical laptop computer(s) with CardBus slot, and product could be used in typical laptop computer with CardBus slot. Other application like handheld PC or similar device has not been verified and may not compliance with related RF exposure rule and such use shall be prohibited.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only IEEE 802.11b or 802.11g operation of this product in the U.S.A. is firmware-limited to channels 1 through 11.

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject

to the following two conditions:

1) this device may not cause interference and

2) this device must accept any interference, including interference that may cause undesired operation of the device

Caution:

The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

#### IMPORTANT NOTE: IC Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with IC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

#### Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

- EN60950-1: 2006 Safety of Information Technology Equipment
- EN50385 : (2002-08)
- Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110MHz - 40 GHz) - General public
- EN 300 328 V1.7.1: (2006-10)
- Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
- EN 301 893 V1.4.1: (2007-07)

 Broadband Radio Access Networks (BRAN);5 GHz high performance RLAN;Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive

#### EN 301 489-1 V1.6.1: (2005-09)

Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

- EN 301 489-17 V1.2.1 (2002-08)
- Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

# €0560

⊡Česky [Czech]	[Jméno výrobce] tímto prohlašuje, že tento [typ zařízení] je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
d₃Dansk [Danish]	Undertegnede [fabrikantens navn] erklærer herved, at følgende udstyr [udstyrets typebetegnelse] overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
⊡Deutsch [German]	Hiermit erklärt [Name des Herstellers], dass sich das Gerät [Gerätetyp] in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
let [Estonian]	Käesolevaga kinnitab [tootja nimi = name of manufacturer] seadme [seadme tüüp = type of equipment] vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
म्ल English	Hereby, [name of manufacturer], declares that this [type of equipment] is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
lesEspañol [Spanish]	Por medio de la presente [nombre del fabricante] declara que el [clase de equipo] cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.

#### **Technical Support**

E-mail: support@asante.com

Toll Free: 1-877-262-0324

Web Site: www.asante.com

<sup>\*</sup>Theoretical maximum wireless signal rate derived from IEEE standard 802.11g and draft 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, mix of wireless products used, radio frequency interference (e.g., cordless telephones and microwaves) as well as network overhead lower actual data throughput rate. This product is based on IEEE draft 802.11n specification and is not guaranteed to be compatible with future versions of IEEE 802.11n specification. Compatibility with draft 802.11n devices from other manufactures is not guaranteed. Specifications are subject to change without notice. Photo of product may not reflect actual content. All products and trademarks are the property of their respective owners. Copyright ©2009 AWRT-300N®